



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/772,316

02/06/2004

Leo Sartor

14610

6480

293 7590 07/23/2008
Ralph A. Dowell of DOWELL & DOWELL P.C.
2111 Eisenhower Ave
Suite 406
Alexandria, VA 22314

EXAMINER

GRAHAM, MARK S

ART UNIT

PAPER NUMBER

3711

MAIL DATE

DELIVERY MODE

07/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LEO SARTOR, ANGELO MONTEMURRO, and
ALAIN BELLEFLEUR

Appeal 2008-2140
Application 10/772,316
Technology Center 3700

Decided: July 23, 2008

Before ERIC GRIMES, RICHARD M. LEBOVITZ, and
JEFFREY N. FREDMAN, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-10,
13-17, and 30-32. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.¹

¹ In this decision we consider only those arguments actually made by Appellants. Arguments that Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

STATEMENT OF THE CASE

The claims are directed to a hockey stick blade having a core surrounded by two layers of fibers and covered by a thermoplastic sheet. The thermoplastic sheet is characterized in the claim as “for increasing the impact resistance” of the hockey blade.

Claims 1-10, 13-17, and 30-32 are pending (App. Br. 2). The claims stand rejected as follows:

1) Claim 1-6, 10, and 30 under 35 U.S.C. § 102(b) as anticipated by Lallemand (U.S. Pat. No. 5,333,857, issued Aug. 2, 1994) (Ans. 3);

2) Claims 1, 6-9, and 13-16 under 35 U.S.C. § 102(e) as anticipated by McGrath (WO 03/097181 A1, filed May 15, 2003) (Ans. 3).

3) Claims 7-9, 13, 14, 31, and 32 under 35 U.S.C. § 103(a) as obvious over Lallemand (Ans. 4);

4) Claims 30 and 32 under 35 U.S.C. § 103(a) as obvious over Lallemand and Tiitola (U.S. Pat. No. 4,059,269, issued Nov. 22, 1977) (Ans. 4); and

5) Claim 17 under 35 U.S.C. § 103(a) as obvious over McGrath and Battis (U.S. Pat. No. 6,273,835 B1, issued Aug. 14, 2001) (Ans. 4).

We focus our analysis on claims 1 and 31, which read as follows:

1. A hockey stick blade with a shank and a blade element having a front external surface and a rear external surface, said hockey stick blade comprising:

(a) a core made of thermo-expandable foam and extending along a longitudinal axis;

(b) a first layer of fibers at least partially wrapping over said core; said first layer of fibers being impregnated with a suitable resin;

(c) a second layer of fibers at least partially wrapping over said first layer of fibers, said second layer of fibers being impregnated with a suitable resin; and

(d) a sheet of thermoplastic material covering at least partially said second layer of fibers, said sheet of thermoplastic material forming part of one of said front and rear external surfaces of said blade element for increasing the impact resistance of said blade.

31. A hockey stick blade with a shank and a blade element having a front external surface and a rear external surface, said hockey stick blade comprising:

(a) a core made of thermo-expandable foam and extending along a longitudinal axis;

(b) a first layer of fibers at least partially wrapping over said core; said first layer of fibers being impregnated with a suitable resin;

(c) a second layer of fibers at least partially wrapping over said first layer of fibers, said second layer of fibers being impregnated with a suitable resin; and

(d) front and rear thermoplastic sheets covering at least partially said second layer of fibers, said front and rear thermoplastic sheets forming part of said respective front and rear external surfaces of said blade element for increasing the impact resistance of said blade, said front and rear thermoplastic sheets being made of thermoplastic material selected from the group consisting of polyethylene, polyurethane, polypropylene, polyester, polystyrene, polyvinyl chloride and cellulose acetate.

1. ANTICIPATION BY LALLEMAND

Claim 1-6, 10, and 30 stand rejected under 35 U.S.C. § 102(b) as anticipated by Lallemand.

Issue

The Examiner's position is that Lallemand's teaching of a hockey stick blade covered by a fiber layer impregnated with resin meets the

limitation in claim 1 of “a sheet of thermoplastic material.” Appellants argue that the resin impregnated layer described in Lallemand would not be understood by persons of ordinary skill in the art to correspond to a sheet of thermoplastic material.

Therefore, at issue in this rejection is whether the Examiner erred in finding that Lallemand teaches a thermoplastic sheet covering a hockey stick blade as required by claim 1.

The Lallemand patent

The following findings of fact (FF) summarize Lallemand’s disclosure of a hockey stick blade:

1. Lallemand describes a hockey stick blade having a core 11 (Lallemand, at col. 2, ll. 42-43) which is surrounded by three superimposed meshes 1, 2, and 3 (*id.* at col. 2, ll. 44-45; *see* Fig. 2; *see* Ans. 3).
2. Each of the mesh layers can be made of fibers (Lallemand, at col. 3, ll. 63- 66).
3. Once the blade core is covered, the fiber layers are impregnated with a resin, such as a thermoplastic resin (Lallemand, at col. 4, ll. 28-31; Ans. 3).

Analysis

To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim.

Karsten Mfg. Corp. v. Cleveland Golf Co., 242 F.3d 1376, 1383 (Fed. Cir. 2001). The following findings of fact are pertinent to this determination:

4. Claim 1 is drawn to a hockey stick blade having: (a) a core; (b) a first layer of fibers impregnated with resin; (c) a second layer of fibers

impregnated with resin; and (d) “a sheet of thermoplastic material covering at least partially said second layer of fibers.”

5. The Specification does not define the term “sheet”.

6. However, the PTO gives claims their broadest reasonable meaning. *In re Buszard*, 504 F.3d 1364, 1366-67 (Fed. Cir. 2007). Accordingly, we adopt its ordinary and customary meaning, i.e., a covering or layer.²

7. A “sheet of thermoplastic material” would therefore correspond to a layer made of a thermoplastic material.

8. Claim 1 does not exclude the “sheet of thermoplastic material” from comprising additional materials or from being made from fibers (*see* Ans. 5).

9. Lallemand describes first and second fiber layers covering a hockey blade core (FF1) as required by claim 1, i.e., elements (a), (b), and (c) (*see* FF4).

10. Lallemand also describes a third fiber layer, covering the second layer, which is impregnated with a thermoplastic resin (FF3) – and thus would be a layer made of a thermoplastic material as required by element (d) of claim 1.

11. Although the thermoplastic impregnated layer described in Lallemand comprises fiber (FF3), claim 1 does not exclude the claimed “sheet of thermoplastic material” from containing materials in addition to the thermoplastic material (FF8).

12. In sum, Lallemand describes all elements (FF9-11) of the hockey blade of claim 1.

Because we agree with the Examiner’s determination that Lallemand anticipates claim 1 (as summarized above), we turn to Appellants’ arguments.

² *Random House College Dictionary* 1211 (Rev. Ed. 1982).

Appellants contend that “mesh 3 cannot be qualified as a ‘thermoplastic sheet’ since this mesh is of the same nature as the other meshes” (App. Br. 9). They state that “a person skilled in [the] art would never identify a layer of fibers impregnated with resin as a being a sheet of thermoplastic material” (*id.*). In support of this position, they cite the Specification which they contend makes it “clear that the claimed sheet of thermoplastic material **is a further element of the blade . . . of a total different nature than the layer of fibers**” (*id.*).

We are not persuaded by these arguments that the Examiner erred in finding claim 1 anticipated. Appellants argue, but do not provide any evidence that persons of skill the art would not “identify” Lallemand’s impregnated layer as “a sheet of thermoplastic material” (App. Br. 9). Arguments of counsel cannot take the place of evidence lacking in the record. *Estee Lauder Inc. v. L’Oreal, S.A.*, 129 F.3d 588, 595 (Fed. Cir. 1997).

Appellants also state that it is clear from the Specification that a “sheet of thermoplastic material” would not be understood to mean a fiber layer impregnated with a thermoplastic resin (App. Br. 9). They argue that it is acknowledged in the Specification that it was known in the art to manufacture hockey stick blades using layers of fiber material impregnated with resin (*id.* at 8) as in Lallemand. They state that the inventors **“recognized that the impact resistance of the hockey stick blade is increased by covering these layers of fiber with a sheet of thermoplastic material”** (*id.* at 9).

This argument is not persuasive. While the Specification refers to prior art blades manufactured with fiber layers “soaked in a resin” (Spec. 1:

13-15), the broadest reasonable interpretation of the claimed “sheet of thermoplastic material” would include the prior art layers containing both fiber and thermoplastic material (*see* FF5-8, 11). i.e., a fiber layer soaked or impregnated with a thermoplastic resin. Appellants ask us to read “sheet of thermoplastic material” to exclude the prior art, but there is no language in the claim that would lead to this interpretation. While claims are interpreted in the light of the Specification, this is not a mandate to extract elements from the Specification and then read them into the claim. *Sjolund v. Musland*, 847 F.2d 1573, 1581 (Fed. Cir. 1988). It is the claims that must distinguish over the prior art, not the Specification.

Appellants also argue that Lallemand does not teach a thermoplastic sheet which is “for increasing the impact resistance of” of the hockey blade as recited in claim 1(d) (Reply Br. 3).

A “prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference.” *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1343 (Fed. Cir. 2005) (citing *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991)). Once “the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990). In this case, because the structure of the prior art thermoplastic impregnated layer meets the structural limitations of the claimed thermoplastic sheet of claim 1, the Examiner had a reasonable basis for believing it would improve the impact resistance of the blade as required by the claim (*see* Ans. 5). Thus, the

claimed property would have reasonably been believed to have been an inherent characteristic of the prior art.

For the foregoing reasons, we affirm the rejection of claim 1 as anticipated by Lallemand. Claims 2-6, 10, and 30 fall with claim 1 because separate reasons for their patentability were not provided. 37 C.F.R. § 41.37(c)(1)(vii).

2. ANTICIPATION BY MCGRATH

Claims 1, 6-9, and 13-16 stand rejected under 35 U.S.C. § 102(e) as anticipated by McGrath.

The issue in this rejection is similar as stated above for Lallemand, but in this case the question is whether the Examiner erred in finding that McGrath teaches a thermoplastic sheet covering a hockey stick blade as required by claim 1.

The McGrath WO patent application

The following findings of fact summarize McGrath's disclosure of a hockey stick blade:

13. Fig. 14A of McGrath shows a hockey stick blade having three exterior plies 520a, 520b, and 520c which are wrapped around core elements 500 (McGrath, at 15, ll. 23-26; at 30, ll. 25-29; at 31, l. 33; *see* Ans. 3).

14. The layers are made of fibers which are disposed in a matrix resin (McGrath, at 15, ll. 23-26; at 28, ll. 17-35; at 29, ll. 23-26; *see* Ans. 3).

15. The layers may be impregnated with a resin matrix material, such as a thermoplastic, prior to molding the hockey blade (McGrath, at 29, ll. 23-36; *see* Ans. 3).

Analysis

To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim.

Karsten Mfg. Corp. v. Cleveland Golf Co., 242 F.3d at 1383. The following findings of fact are pertinent to this determination:

16. McGrath describes first and second fiber layers covering a hockey blade core (FF13) required by claim 1, i.e., elements (a), (b), and (c) (*see* FF4).

17. McGrath also describes a third fiber layer which is impregnated with a thermoplastic resin (FF13, 15) – and thus would be a layer made of thermoplastic material as required by element (d) of claim 1 (*see* FF5-8).

18. Although the thermoplastic impregnated layer described by McGrath comprises fiber (FF13, 15), claim 1 does not exclude the claimed “sheet of thermoplastic material” from containing materials in addition to the thermoplastic material (FF8).

19. In sum, McGrath describes all elements (FF16-18) of the hockey blade of claim 1.

Because we agree with the Examiner’s determination that McGrath anticipates claim 1 (as summarized above), we turn to Appellants’ arguments.

Appellants argue that the layers describes by McGrath “cannot be qualified as a ‘thermoplastic sheet’ since they are made of fibers pre-impregnated with epoxy” (App. Br. 13). They argue, as they did for *Lallemand*, that the claimed “thermoplastic sheets” would not be understood by persons of skill in the art, in view of the teachings in the instant Specification, to correspond to the thermoplastic impregnated layers described in McGrath (*id.* at 13).

For the same reasons stated above in our discussion of Lallemand, we are not persuaded that the thermoplastic sheet as claimed is structurally or functionally different from the impregnated layer described in McGrath. Thus, we affirm the rejection of claim 1 as anticipated by McGrath. Claims 6-9 and 13-16 fall with claim 1 because separate reasons for their patentability were not provided. (37 C.F.R. § 41.37(c)(1)(vii); *see* App. Br. 14).

3. OBVIOUSNESS OVER LALLEMAND

Claims 7-9, 13, 14, 31, and 32 stand rejected under 35 U.S.C. § 103(a) as obvious over Lallemand.

The Examiner concludes that the claims would have been obvious over Lallemand (Ans. 4). Appellants argue that claims 7-9, 13, and 14 are patentable because they depend directly or indirectly on claim 1 and “include by reference all of the features” recited in claim 1 (App. Br. 14). “A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.” 37 C.F.R. § 41.37(c)(1)(vii). Thus, we treat claims 7-9, 13, and 14 as if they were not separately argued, and therefore affirm the rejection of these claims for the reasons set forth by the Examiner (Ans. 4).

Claims 31 and 32

Claim 31 is directed to a hockey stick blade comprising: (a) a core wrapped with (b) a first layer of fibers impregnated by a resin; (c) a second layer of fibers impregnated by a resin; and (d) thermoplastic sheets covering the second fiber layer which are made from a thermoplastic material “selected from the group consisting of polyethylene, polyurethane,

polypropylene, polyester, polystyrene, polyvinyl chloride and cellulose acetate.”

The Examiner takes “official notice that the foams and thermoplastics claimed by applicant are commonly known and such is now admitted prior art” (Ans. 4). Appellants contend that they “never admitted that the use of a sheet of thermoplastic material was commonly known” (App. Br. 15). Appellants also disagree with the “Examiner’s assertion”; they state that Lallemand does not disclose or suggest thermoplastic sheets made of the thermoplastic materials specifically recited in claim 31 (Reply Br. 5).

Appellants’ argument is not persuasive. The Examiner’s finding is supported by the teaching in the Specification that thermoplastic polyurethane sheets were known and commercially available (Spec. 10: 1-3). We also note that polyethylene – one of the plastics recited in claim 31 – is disclosed in Lallemand as a fiber from which the meshes can be constructed (Lallemand, at col. 3, ll. 60-61). There is no limitation in claim 31 that would exclude the sheet from being made of thermoplastic fibers (FF9).

Thus, we affirm the rejection of claim 31 as obvious over Lallemand. Appellants do not argue the separate patentability of claim 32 stating that “[b]ecause claim 32 depends from claim 31 and includes by reference all of the features recited in claim 31, claim 32 is also patentable” (App. Br. 17). “A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.” 37 C.F.R. § 41.37(c)(1)(vii). Consequently, dependent claim 32 falls with claim 31.

4. OBVIOUSNESS OVER LALLEMAND IN VIEW OF TIITOLA

Claims 30 and 32 stand rejected under 35 U.S.C. § 103(a) as obvious over Lallemand and Tiitola.

The Examiner concludes that claims 30 and 32 are obvious over Lallemand and Tiitola (Ans. 4). Appellants argue that claims 30 and 32 are patentable because they “include by reference all the features” recited in claims 1 and 31, respectively (App. Br. 17). “A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.” 37 C.F.R § 41.37(c)(1)(vii). Thus, we treat claims 30 and 32 as if they were not separately argued, and therefore affirm their rejection for the reasons set forth by the Examiner (Ans. 4).

5. OBVIOUSNESS OVER MCGRATH IN VIEW OF BATTIS

Claim 17 stand rejected under 35 U.S.C. § 103(a) as obvious over McGrath and Battis.

The Examiner concludes that claim 17 is obvious over McGrath and Battis. Appellants argue that claim 17 is patentable because it “include[s] by reference all the features recited in claim 1” (App. Br. 17). “A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.” 37 C.F.R § 41.37(c)(1)(vii). Thus, we treat claim 17 as if it was not separately argued, and therefore affirm its rejection for the reasons set forth by the Examiner (Ans. 4).

Appeal 2008-2140
Application 10/772,316

TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

Ssc:

RALPH A. DOWELL of DOWELL & DOWELL, P.C.
2111 EISENHOWER AVENUE
SUITE 406
ALEXANDRIA, VA 22314